

Menstrual cycle problems

ENDOMETRIOSIS

ENDOMETRIOSIS

- It is the presence of functioning endometriotic foci outside the uterus

Etiology:

- Is unknown
- Retrograde menstruation. (endometrial cells, and other debris backward through the fallopian tubes resulting in implantation in the peritoneal cavity. Estrogen and other factors leads to development and growth of lesions)

ENDOMETRIOSIS

Clinical Presentation:

Depending on the location of the extrauterine endometriosis:-

- secondary dysmenorrhea
- pelvic pain.
- Dyspareunia.
- Menstrual irregularities.
- Infertility.

ENDOMETRIOSIS

Treatment:

1- Surgery

A. definitive surgery,

hysterectomy and oophorectomy.

B. Conservative surgery

Removal of endometriotic lesions and adhesions in an attempt to restore normal pelvic architecture while preserving the potential for childbearing.

ENDOMETRIOSIS

Treatment:

2. Combined hormonal contraceptives

- inhibit ovulation, reducing menstrual flow, potentially to the point of amenorrhea. These mechanisms contribute to atrophy of endometrial implants.

ENDOMETRIOSIS

TREATMENT

3. Gonadotropin-releasing hormone agonists

- Inhibit hypothalamic -pituitary- ovarian axis, decreasing release of FSH and LH, leading to amenorrhea.
- second-line, after oral contraceptives.
- GnRH agonists as IM depot leuprolide

ENDOMETRIOSIS

Treatment:

4. Danazol

- an androgenic drug
- Causes anovulation, amenorrhea, and atrophy of endometrial implants.
- Side effects:-
 - weight gain,
 - voice changes,
 - edema, acne, hot flashes, vaginal dryness, hirsutism, liver disease, and increased cholesterol.
- Use limited to 6 months after all other therapy options have failed.

GYNAECOLOGIC DISORDERS

GYNAECOLOGIC DISORDERS

- 1-Infections in young women e.g. vaginitis, toxic shock, and pelvic inflammatory disease.
- 2-Menstrual cycle problems e.g. dysmenorrhea, premenstrual syndrome, and endometriosis
- 3-During perimenopause (problems related to declining estrogen levels), including hot flashes and genitourinary atrophy.
- 4-Postmenopausal condition is osteoporosis

1) VAGINITIS (VULVOVAGINITIS)

Cause vaginal infection or vaginitis include

1. *Trichomonas vaginalis*
2. *Candida albicans*
3. *Gardnerella vaginalis*
4. Anaerobes e.g. bacterial vaginosis (BV).
5. *Chlamydia trachomatis* and *Mycoplasma hominis*.

1) VAGINITIS (VULVOVAGINITIS)

Epidemiology:

- At least one-third of all women of childbearing age currently have one or more vulvovaginal infections.

Symptoms:

vaginal discharge, itching, and burning.

Those results in embarrassment

1) VAGINITIS (VULVOVAGINITIS)

- A pH of 4.5 is maintained by the normal flora,(aerobic and anaerobic bacteria) that break down glycogen, to lactic acid
- If lactobacilli are suppressed by the administration of antibiotic drugs, yeasts or various bacteria normally present may become pathogenic causing irritation and inflammation.

1) VAGINITIS (VULVOVAGINITIS)

- After menopause, pH changes from acid to neutral or alkaline, which along with a thinning of the vaginal epithelium and a reduction of cervical mucus, leads to increased vaginal infections and atrophic vaginitis.

A) VULVOVAGINAL CANDIDIASIS (VVC)

- **Causes** Candida albicans
- Symptoms include:
 - Vaginal itching
 - Vaginal burning
 - External dysuria
 - Vaginal soreness
 - Irritation

A) VULVOVAGINAL CANDIDIASIS (VVC)

Signs include:

- Odorless vaginal discharge
- Erythema and edema of the labia and vulva
- Fissures

Diagnostic Testing:

- Microscopic
(presence of blastospores or pseudohyphae)
- Vaginal pH less than or equal to 4.5(normal)
- Candida cultures in cases of recurrent VVC.

DRUG TREATMENT OF VAGINAL CANDIDIASIS

- **1-One-day therapy**
 - Fluconazole 150 mg single dose orally
 - Clotrimazole 500 mg Vag Tab(Single dose Vaginally).
- **2-Three-day therapy**
 - Butoconazole nitrate 2% Vag Cr
 - Clotrimazole 1% Vag Cr **2 times daily**
- **3-Seven-day therapy**
 - Clotrimazole 1% Vag Cr (CDOC) ^{Once} **daily**

RECURRENT VULVOVAGINAL CANDIDIASIS (RVVC)

Definition:

- four or more symptomatic episodes of VVC annually

Treatment:

- Oral fluconazole 150 mg repeated After 3 days
- or 14 days of topical azole therapy can be used.

- Then *long-term suppressive therapy for 6 months.*

- Fluconazole 150 mg weekly for 6 months will prevent recurrence of infection

VVC DURING PREGNANCY

- Only topical intravaginal regimens recommended (usually for 7 days)
- -Clotrimazole

yeast infection reduced by:-

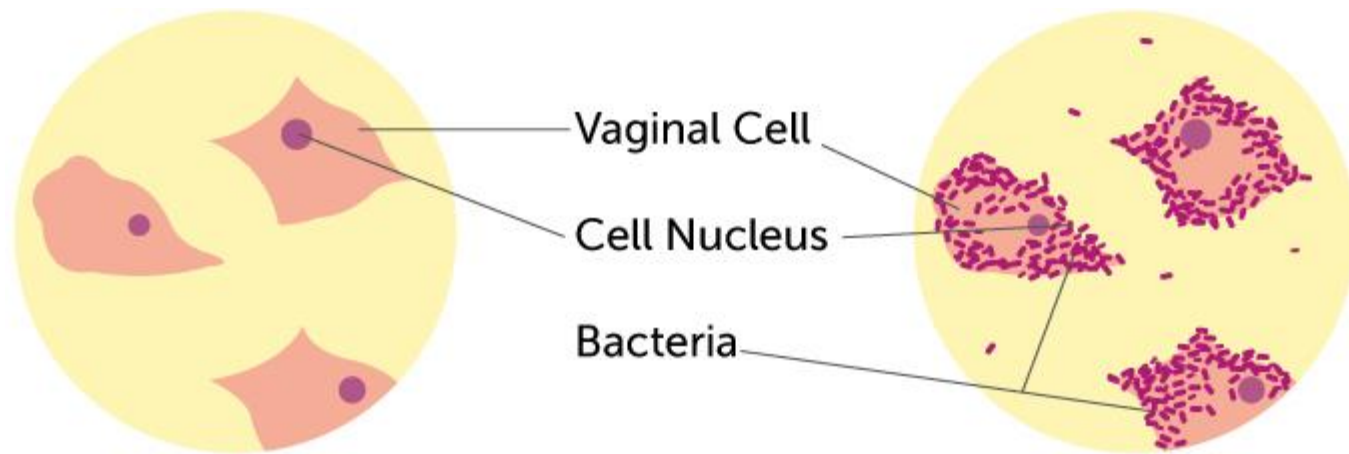
- 1-wearing cotton panties, which are cooler than synthetic panties and won't trap sweat;
- 2-avoiding douches and feminine sprays, which can be irritating;
- 3- avoiding very hot baths;
- 4-changing tampons or pads often during your period
- 5- getting out of wet clothes;
- 6-avoiding tight panties and jeans.

2-BACTERIAL VAGINOSIS

- Overgrowth of vaginal anaerobic and decrease or loss of protective lactobacilli (Disturbed vaginal ecosystem)
- *Gardnerella vaginalis* (GV) & other microorganisms in high titers
- Male sex partners may be colonized but asymptomatic

BACTERIAL VAGINOSIS

- Gray, homogenous discharge *fishy* odor
- Clue cells present
- pH>4.5
- Positive Whiff test (KOH)



Normal vaginal cells seen under a microscope.

"Clue Cells", vaginal cells with bacteria stuck to them.

BV Diagnosis: Amsel Criteria

Amsel Criteria:

Must have at least
three of the
following findings:

1-Vaginal pH >4.5

**2-Presence of >20% per HPF of
"clue cells" on wet mount
examination**

3-Positive amine or "whiff" test

**4- Non-viscid, milky-white
discharge adherent to the
vaginal walls**

BACTERIAL VAGINOSIS

TREATMENT

- **Metronidazole 500 mg twice daily x 7 days**
- **Metronidazole gel 0.75%, 5 g intravaginally once daily x 5 days**
- **Clindamycin cream 5%, 5 g intravaginally x 7 days**

Alternative regimens

- **Metronidazole 2 gm in a single dose**
- **Clindamycin 300 mg twice daily x 7 days**
- **Clindamycin ovules 100 g intravaginally qhs x 3 days**

BACTERIAL VAGINOSIS

TREATMENT IN PREGNANCY

**Metronidazole 250 mg three times daily
for 7 days**

or

**Clindamycin 300 mg twice daily for 7
days**

BACTERIAL VAGINOSIS

MANAGEMENT OF SEX PARTNERS

- Not recommended

3-TRICHOMONIASIS

- **Etiology**
 - *Trichomonas vaginalis*
(a flagellated protozoa)

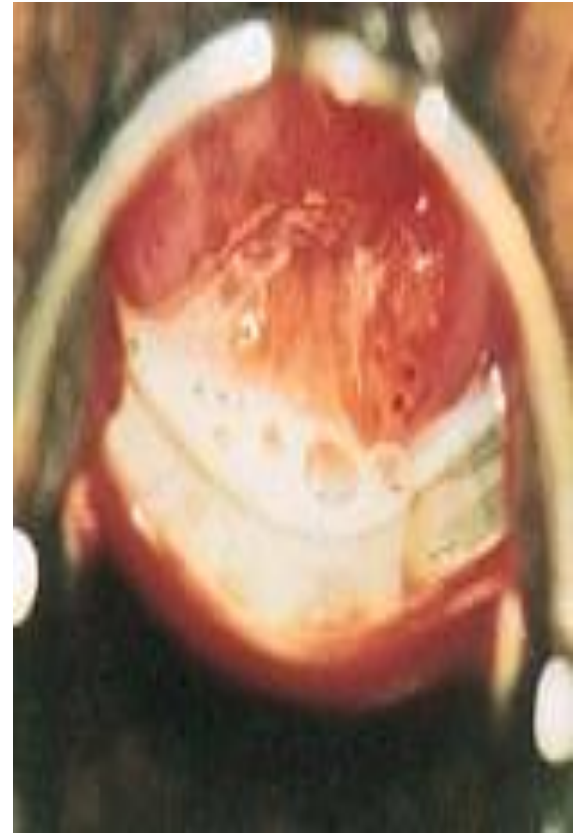


TRICHOMONIASIS

- Sexually transmitted
- Causes urethritis in men (asymptomatic)
- Possible association with
 - Pre-term rupture of membranes.
 - Increased risk of HIV acquisition

TRICHOMONIASIS

- Yellow-green frothy discharge, adherent to vaginal walls, with foul odor.
- Vulvovaginal erythema
- '*strawberry cervix*'
- Motile trichomonads.
- Whiff test (KOH) +/-



TRICHOMONIASIS

TREATMENT

Recommended regimen

Metronidazole 2 gm orally in a single dose

Alternative regimen

Metronidazole 500 mg twice a day for 7 days

Pregnancy

Metronidazole 2 gm orally in a single dose

TRICHOMONIASIS

TREATMENT FAILURE

- Re-treat with metronidazole 500 mg twice daily for 7 days.
- If above fails, Rx with metronidazole 2 gm single dose x 3-5 days.
- In repeated failure:
 - Confirm diagnosis with culture
 - consider metronidazole susceptibility testing through the CDC
 - Trial of tinidazole

TRICHOMONIASIS

OTHER MANAGEMENT ISSUES

- No alcohol for the duration of treatment and for at least 24 h after the last dose.

TRICHOMONIASIS

MANAGEMENT OF PARTNERS

- partners should be treated, even if asymptomatic
- Avoid intercourse until therapy is completed and patient and partner are asymptomatic

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VAGINITIS DIFFERENTIATION

	Normal	Trichomoniasis	Candidiasis	Bacterial Vaginosis
Symptom presentation		discharge, itch, 50% asymptomatic	Itch, discomfort, dysuria, thick discharge	Odor, discharge, itch
Vaginal discharge	Clear to white	Frothy, gray or yellow-green; malodorous	Thick, clumpy, white “cottage cheese”	Homogenous, adherent, thin, milky white; malodorous “foul fishy”
Clinical findings		“strawberry cervix”	Inflammation and erythema	
Vaginal pH	3.8 - 4.2	> 4.5	Usually ≤ 4.5	> 4.5
KOH “whiff” test	Negative	Often positive	Negative	Positive
NaCl wet mount	Lacto-bacilli	Motile flagellated protozoa, many WBCs	Few WBCs	Clue cells ($\geq 20\%$), no/few WBCs
KOH wet mount			Pseudohyphae	



*THANK
YOU*